

Claims

1. An anastomosis device, comprising:
a proximal ring;
a distal ring;
a plurality of proximal arms each attached to the proximal ring at one end and
5 having a distally directed other end;
a plurality of distal arms attached to the distal ring at one end and having a
proximally directed other end;
a center portion coupling the proximal end of each distal arm to the distal end of
each proximal arm; and
10 a latching mechanism operably configured to lock at a reduced longitudinal
spacing two selected from a group consisting of the proximal ring, the distal ring, and the
center portion;
wherein the anastomosis device forms a cylindrical shape when unactuated and
forms the proximal and distal arms each outwardly extend when actuated to form a rivet
15 shape.
2. The anastomosis device of claim 1, wherein the center portion comprises a center
ring aligned and interposed between the proximal and distal rings.
3. The anastomosis device of claim 2, wherein the proximal arms are radially aligned
with the distal arms
4. The anastomosis device of claim 2, wherein the proximal arms are radially
staggered with the distal arms to form a tortuous path of apposed tissue
5. The anastomosis device of claim 1, further comprising radiopaque target material.
6. The anastomosis device of claim 1, wherein the device is formed from polymer
material.

7. The anastomosis device of claim 6, wherein the device is formed from biofragmentable material.
8. The anastomosis device of claim 1, wherein the device is formed from sheet material, cylindrically formed onto a mandrel, and opposing longitudinal edges attaches one to another.
9. The anastomosis device of claim 1, wherein the latching mechanism comprises at least one interiorly disposed hook.
10. The anastomosis device of claim 1, wherein the latching mechanism comprises an interference fit formed between rings.
11. The anastomosis device of claim 1, wherein the proximal and distal arms each include a hinge.
12. The anastomosis device of claim 11, wherein the central disposed hinge of each arm defines an inner arm segment and an outer arm segment, further comprising a pad outwardly disposed on each inner arm segment.

13. An anastomosis device, comprising:
forming a generally rectangular substrate having a proximal portion, a proximal arm portion, a center portion, a distal arm portion, and a distal portion;
forming a plurality of longitudinally aligned separations in both the proximal arm portion
5 and the distal arm portion;
connecting opposite lateral edges to form a generally cylindrical shape.
14. The anastomosis device of claim 14, wherein forming the generally rectangular substrate further comprises forming from a biofragmentable material.
15. The anastomosis device of claim 14, further comprising adding a radiopaque material to the substrate.
16. The anastomosis device of claim 14, wherein forming the generally rectangular substrate further comprises forming from a metal sheet material.
17. The anastomosis device of claim 14, wherein connecting opposite lateral edges comprises fusing.
18. The anastomosis device of claim 14, further comprising forming laterally aligned hinge portions in both the proximal and distal arm portions.
19. The anastomosis device of claim 14, wherein the hinge portion of each arm defines a longitudinally shorter inner arm segment from a longer outer arm segment, further comprising forming separations in the center portion that communicate with the separations in both the proximal and distal arms portions to allow the center portion to
5 dilate when actuated.

20. An anastomosis ring device, comprising:
- a proximal arm means for engaging a first lumen;
 - a distal arm means for engaging a second lumen; and
 - a latching means maintaining the proximal and distal arm means in an actuated
- 5 condition to cause anastomosis.